



# Carbon Divestment or Higher Prospective Returns: A False Dilemma?

Why reducing carbon in credit portfolios doesn't necessarily mean lower returns



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## EXECUTIVE SUMMARY

Climate change has been a growing concern among investors. The Conference of Parties (COP) “aims to achieve a legally binding and universal agreement on climate, with the aim of keeping global warming below 2°C.”<sup>1</sup> Many investors have begun “divesting” from high-carbon asset classes, or are considering doing so. Some seek to avoid the possibility of fossil fuel reserves becoming unburnable and worthless (aka “stranded assets”), while others are concerned about the impact of regulations (according to the International Energy Agency (IEA), rules governing climate change, energy efficiency and renewable energy have grown from less than 200 in 2005 to close to 1,400 in 2013). Other investors want to align their concerns about climate change with how they are investing.

Amid this general concern about fossil fuels and climate change, many investors assume that investing in low-carbon investment alternatives will automatically reduce potential future returns. Our research at Standish, however, has shown that there may be a way to reduce the carbon impact of corporate debt portfolios significantly without necessarily diminishing potential returns. We believe the key is judicious sector and issuer selection as well as understanding how to calibrate volatility, duration and credit quality in constructing low carbon corporate debt portfolios.

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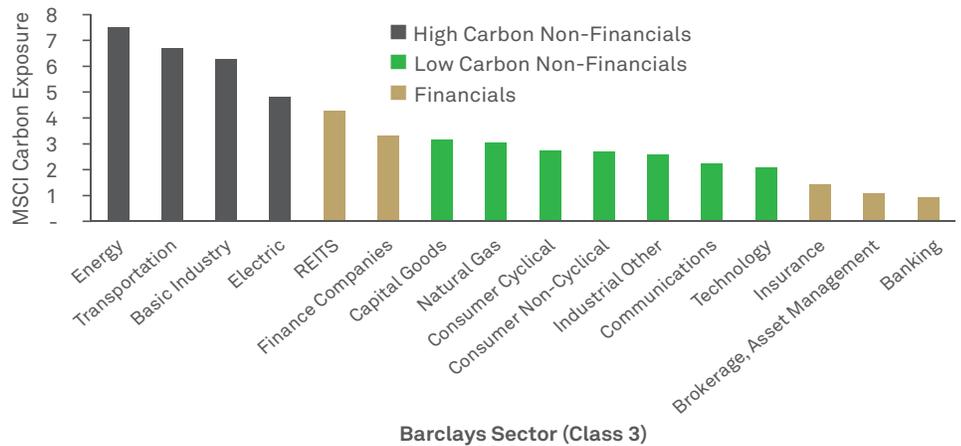
<sup>1</sup> Conference of Parties, <http://www.cop21paris.org/about/cop21>

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**CARBON AND CORPORATE BOND PERFORMANCE: A HISTORICAL PERSPECTIVE**

Some sectors are inherently more carbon-intensive than others, but carbon intensity or carbon exposure can be tricky to define. Should fossil-fuel reserves be considered? Should the carbon intensity of end products be part of the equation? To create an objective approach in assessing carbon issues, we cross-referenced the “carbon exposure” factor as measured by data from MSCI (a measure on a scale from 0-10) with the Barclays US Credit Corporate Index.<sup>2</sup> This process highlights how major corporate sectors can be broken down into three major groups as shown in Figure 1: High Carbon Non-Financials, Low Carbon Non-Financials, and Financials.

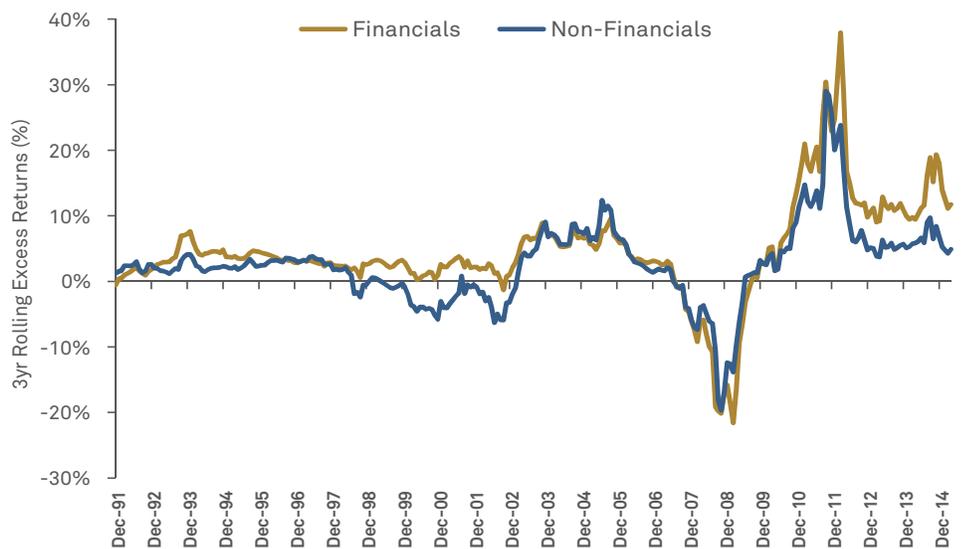
**Figure 1: Average MSCI Carbon Exposure of US Corporates by Sector**



Source: Barclays, MSCI as of 5/31/2015. Standish calculations. The Barclays US Corporate Index, which is a subset of the broader Barclays US Credit Index, is representative of publicly issued, investment-grade, fixed rate, dollar-denominated, non-convertible, US corporate debt securities that have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

Breaking out financial sectors seems unnecessary as they fall mostly within the “low carbon” category. However, as illustrated in Figure 2 below, the return dynamics of financial corporate bonds have differed significantly from non-financial corporate bonds, especially around and following the 2008-2009 Global Financial Crisis.

**Figure 2: Financial vs Non-Financial US Corporate Bonds – 3yr Rolling Excess Returns**

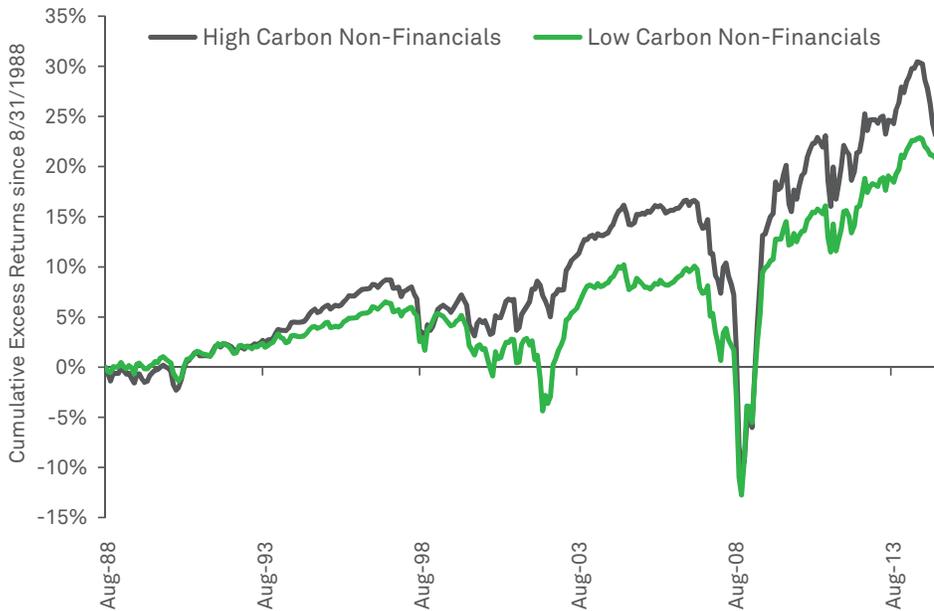


Source: Barclays POINT, MSCI as of 5/31/2015 using Barclays US Credit Corp Index. Standish calculations.

<sup>2</sup> We focused our analysis on the US credit markets because they have the longest track record and we believe they are a good proxy for international corporate markets. Our findings in terms of historical performance or characteristics are similar for Global and Euro Corporate markets.

Leaving financials out of the equation, have high carbon sectors outperformed low carbon sectors? At first glance, yes. The mid-90s, turn of the millennium and pre-Global Financial Crisis (GFC) years saw outperformance in High Carbon sectors as shown in Figure 3 below:

**Figure 3: High Carbon vs Low Carbon Non-Financial Corporate Bonds Cumulative Excess Returns since 8/30/1988**

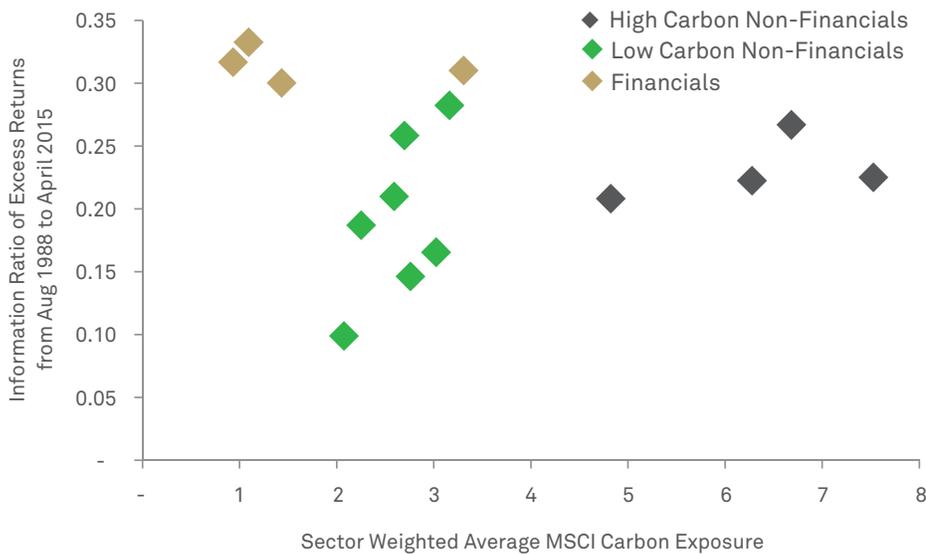


High carbon sectors did not exhibit superior risk-adjusted returns.

Source: Barclays POINT as of 5/31/2015 using Barclays US Credit Corp Index. Standish calculations.

Digging a bit deeper, however, it is clear that this outperformance did not come for free: the high carbon sectors have information ratios similar to the low carbon sectors. In other words, the excess returns came with higher volatility (Figure 4).

**Figure 4: Information Ratio vs Avg Sector Carbon Exposure**

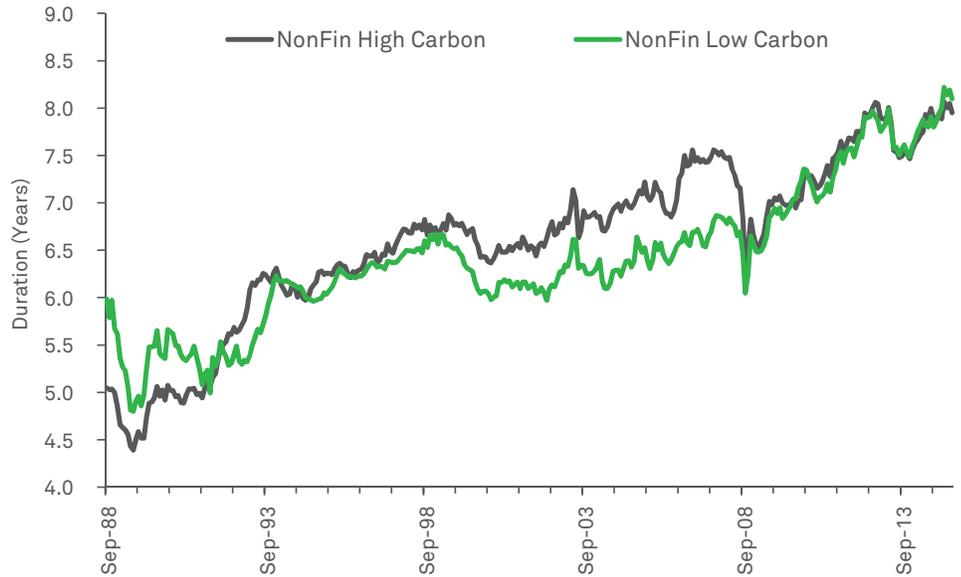


Source: Barclays POINT using Barclays US Credit Corp Index. Standish calculations.

The longer duration and lower credit ratings associated with high-carbon sectors are in general due to the different capital structures of high carbon vs low carbon companies.

So why have high carbon sectors exhibited higher volatility than low carbon sectors? Longer duration and lower ratings. The longer duration and lower credit ratings associated with high-carbon sectors are in general due to the different capital structures of high carbon vs low carbon companies. High carbon companies tend to be more leveraged and issue debt further out on the curve. Indeed, the average duration of the high carbon sectors has been at times up to a full year longer than that of the low carbon non-financial sectors.

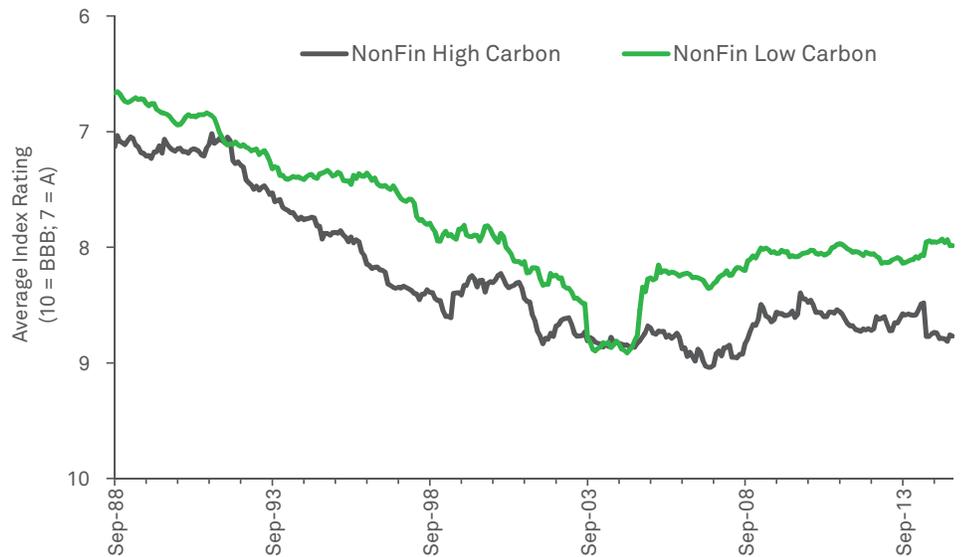
**Figure 5: Average Duration – High Carbon vs Low Carbon Non-Financial Corporate Bonds**



Source: Barclays POINT as of 5/31/2015 using Barclays US Credit Corp Index. Standish calculations.

Similarly, the average credit rating of “high carbon” sectors has been consistently lower than that of “low carbon” sectors (Figure 6).

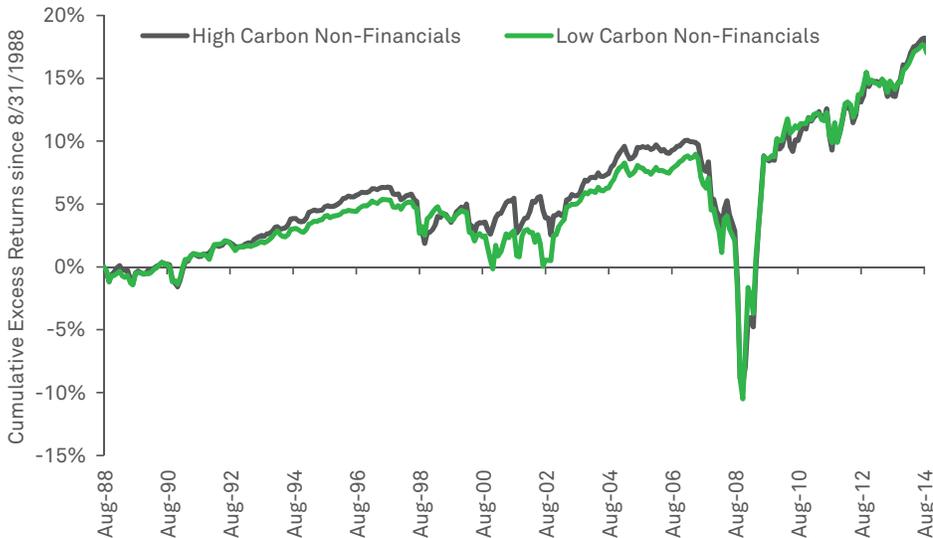
**Figure 6: Average Rating – High Carbon vs Low Carbon Non-Financial Corporate Bonds**



Source: Barclays POINT as of 5/31/2015 using Barclays US Credit Corp Index. Standish calculations.

A one-notch rating and one-year duration difference may seem mundane; but a cumulative return analysis on a rating- and duration-adjusted subset of each universe shows that these factors matter, with high carbon and low carbon sectors now essentially mirroring each other (Figure 7):

**Figure 7: High Carbon vs Low Carbon Non-Financial Corporate Bonds  
5-10 Year Maturities, A-Rated subset-Cumulative Excess Returns since 8/30/1988**



Source: Barclays POINT as of 5/31/2015 using Barclays US Credit Corp Index. Standish calculations.

An active manager can compensate for structural differences between low carbon and high carbon sectors.

This exercise shows that high-carbon sectors have incrementally outperformed low-carbon sectors because of structural factors such as duration and average sector ratings. An active manager can – and typically does – adjust for those factors. Indeed, active managers typically favor A and BBB-rated issuers, which offer meaningfully higher spreads than AAA and AA-rated issuers. Similarly, sector duration is also an active positioning lever.

### IMPLEMENTING A CARBON-AWARE FIXED INCOME PORTFOLIO: STANDISH CARBON IMPACT BENCHMARK

We believe wholesale carbon avoidance is unrealistic. To some extent the distinction between low carbon and high carbon sectors can be a reflection of limitations in carbon attribution rather than inherently low carbon business models. Financial institutions are typically rated low carbon, but as global intermediary institutions, their overall business partly reflects the handling of assets and liabilities generated by carbon-heavy activities. The difficulty in tracking a sector's high carbon activities doesn't make their impact less tangible.

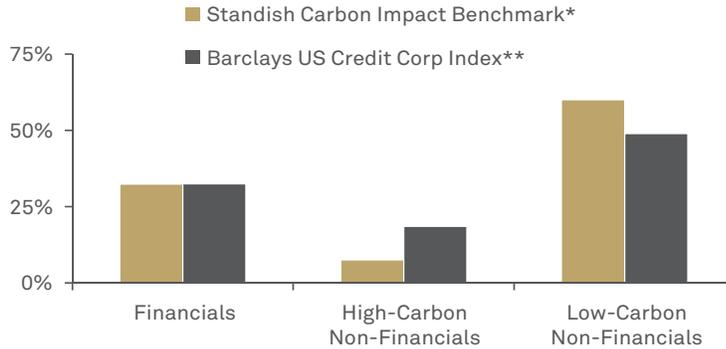
Additionally, pure high carbon avoidance alone removes a significant market signaling tool. According to the International Energy Agency (IEA), \$48 trillion will be needed to transition the global economy to a sustainable, carbon-light model by 2035.<sup>3</sup> While some new technologies and business models will likely emerge, the sheer scale of investments means a successful adaptation of at least some existing market participants is the most likely path towards a low-carbon economy. We therefore believe that carbon-aware strategies should not exclude specific sectors but could consider investments in “best-in-class” issuers.

3 May 2014 World Energy Investment Outlook, <https://www.iea.org/publications/freepublications/publication/WEIO2014.pdf>

The carbon intensity of the Standish Carbon Impact benchmark is less than half that of the Barclays US Credit Corporate Index.

Standish's approach offers a potential solution based on a custom benchmark ("Standish Carbon Impact Benchmark") that includes both sector tilting and best-in-class issuer selection (Figure 8):

**Figure 8: Sector Diversification**



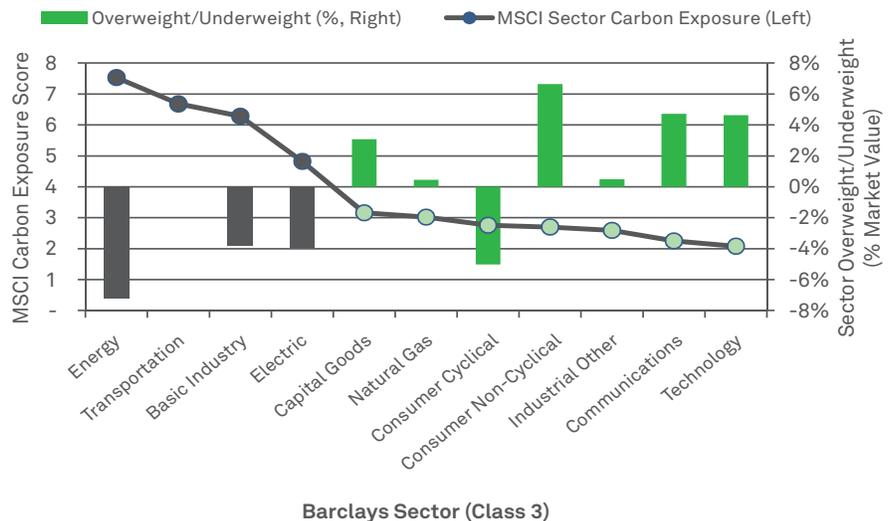
Source: Barclays POINT as of May 31, 2015.

\*Standish Carbon Impact Benchmark is defined in the text. See also footnotes 4 and 5.

\*\*The Barclays US Corporate Index, which is a subset of the broader Barclays US Credit Index, is representative of publicly issued, investment-grade, fixed rate, dollar-denominated, non-convertible, US corporate debt securities that have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

- Environmental, social and governance filters<sup>4</sup> ensure that only best-in-class issuers are selected within each sector.
- Sector tilting<sup>5</sup> ensures that the carbon intensity of the Standish Carbon Impact benchmark is less than half that of the Barclays US Credit Corporate Index (90 vs 186 respectively, as measured by the MSCI Scope 1+2 Carbon emissions per million dollars (USD) sales in 2013).

**Figure 9: Sector Overweights/Underweights – Standish Carbon Impact Benchmark vs Barclays US Credit Corp Index**



Source: Barclays, MSCI as of 5/31/2015. Standish calculations.

4 Methodology: starting with the Barclays MSCI US Aggregate SRI universe, the following issuers are excluded: (1) ESG rating below BBB, (2) ESG rating equal to BBB with a negative MSCI ESG momentum, and (3) MSCI Impact Monitor Score below 4.

5 Methodology: Each Barclays Class 4 sector in the non-financial sector is ranked based on the weighted average MSCI Carbon Emissions Exposure Score of each issuer, and are ranked by quartile. The sectors in the highest MSCI Carbon Exposure Score quartile is a given relative weight of 25%. The 2nd, 3rd and 4th quartile are given a relative weight of 50%, 75% and 100% respectively. The relative weights of Financials and Non-Financials are rebalanced to match those of the Barclays US Credit Corporate Index.

The current characteristics and historical performance of the Standish Carbon Impact benchmark are very similar to that of the Barclays US Credit Corporate universe:

**Table 1**

	Standish Carbon Impact Benchmark	Barclays US Credit Corp Index
Yield	2.99%	3.09%
Duration	6.81 years	7.27 years
Option Adjusted Spread (OAS)	129.9 bps	133.2 bps
Average Quality	A3/BAA1	A3/BAA1
Number of Issuers	313	759
Annualized Performance <sup>1</sup>	6.07%	6.24%
<b>Annualized Excess Return<sup>1</sup></b>	<b>1.54%</b>	<b>1.44%</b>
Annualized Volatility <sup>1</sup>	6.32%	6.14%

<sup>1</sup> December 31, 2006 through May 31, 2015.

Source: Barclays POINT as of 5/31/2015. Standish calculations. Past performance is no indication of future results

This very similar performance occurred with a shorter duration of the Standish Carbon Impact Benchmark, in a period from 12/31/2006 to 5/31/2015 where the yield on the 10- year US Treasury note dropped from 4.68% to 2.12%. In terms of excess returns over US Treasuries, the Standish Carbon Impact Benchmark actually outperformed the Barclays US Credit Corporate Index.

And unlike passive approaches, the potential for alpha from issuer and sector selection remains. Indeed, our investment teams believe that defining a benchmark appropriately is the foundation of a pragmatic carbon-aware corporate portfolio. Actual holdings will reflect relative value considerations across and within sectors. Building on Standish's internal research resources, our investment team will independently assess ESG and sustainability characteristics of each sector and issuer.

## CONCLUSION

Investors wanting to protect their investment from potential risks or seeking to express personal or institutional environmental or social values through their investments often believe they must live with lower expected returns as a result. At Standish we believe this is not a foregone conclusion and that a thoughtfully constructed bond portfolio can mitigate perceived trade-offs. As a trusted partner delivering innovative solutions for our clients since 1933, our investment teams are ready to develop strategies reflecting your sustainability concerns.

## ABOUT THE AUTHOR

Stephan Bonte, CFA is Director of Sustainable Investing. In his role, Stephan drives the sustainability/ ESG integration efforts at Standish, leads related product development efforts, and focuses broadly on the development of Standish's sustainable investing platform. His previous roles at Standish include Portfolio Manager and Quantitative Analyst in Short Duration Strategies as well as Senior Portfolio Specialist for several strategies including US Core, Global Core, Investment Grade Credit, Interest Rate and Securitized strategies. Stephan is also Senior Portfolio Specialist for Short Duration Strategies. Prior to joining BNY Mellon, he worked at Ansys, Inc., an engineering simulation software company. He has an M.B.A. from Carnegie Mellon University and a B.S. in Physics and an M.S. in Optical Engineering from the French Institute of Optics. He holds the CFA® designation and has 11 years of investment experience.

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